

O'Bryen, Barbara

From: Switzer, Juliet
Sent: Thursday, October 14, 2004 2:10 PM
To: O'Bryen, Barbara
Subject: RE: alignment

sorry. seq id no 58 of serial number 10077176.
thanks.

-----Original Message-----

From: O'Bryen, Barbara
Sent: Thursday, October 14, 2004 2:10 PM
To: Switzer, Juliet
Subject: RE: alignment

It would be easier for me to do this if I had & seq id # & serial number.

-----Original Message-----

From: Switzer, Juliet
Sent: Thursday, October 14, 2004 2:02 PM
To: O'Bryen, Barbara
Subject: alignment

Hi barb.

Will you please align nucleotides 252-1430 against GenBank X60012?
Will you let me know when you've done it- I'll come pick up the print out.
Thanks.
Juliet

This Page Blank (uspto)

Copyright (c) 1993 - 2004 Compugen Ltd.
GenCore version 5.1.6

OM nucleic - nucleic search, using sw mode1

Run on: September 28, 2004, 12:05:54; Search time 16 Seconds

(without alignments)
2.637 Million cell updates/sec

Title: SEQ58-252-1430

Perfect score: 1179

Sequence: 1 atcggaggcccgcaatcaga.....cagaaggccgtgactcaga 1179

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 13 seqs, 17894 residues

Total number of hits satisfying chosen parameters: 26

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : issddb: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1179	100.0	1182	1	US-08-184-009-215
2	1179	100.0	1182	1	US-08-458-356-215
3	1179	100.0	1182	1	US-08-796-101-46
4	1179	100.0	1182	1	US-08-460-316-103
5	1179	100.0	1182	1	US-09-535-170-215
6	1179	100.0	1484	1	US-08-184-009-103
7	1179	100.0	1484	1	US-08-458-356-103
8	1179	100.0	1484	1	US-08-460-316-103
9	1179	100.0	1484	1	US-09-535-170-103
10	1179	100.0	1512	1	US-08-184-009-99
11	1179	100.0	1512	1	US-08-458-356-99
12	1179	100.0	1512	1	US-08-460-316-99
13	1179	100.0	1512	1	US-09-535-370-99
C 14	26.6	2.3	1182	1	US-08-184-009-103
C 15	26.6	2.3	1182	1	US-08-114-010-215
C 16	26.6	2.3	1182	1	US-08-458-356-215
C 17	26.6	2.3	1182	1	US-08-460-316-215
C 18	26.6	2.3	1182	1	US-09-535-370-215
C 19	26.6	2.3	1484	1	US-08-184-009-103
C 20	26.6	2.3	1484	1	US-08-458-356-103
C 21	26.6	2.3	1484	1	US-08-460-316-103
C 22	26.6	2.3	1484	1	US-09-535-370-103
C 23	26.6	2.3	1512	1	US-08-184-009-99
C 24	26.6	2.3	1512	1	US-08-458-356-99
C 25	26.6	2.3	1512	1	US-08-460-316-99
C 26	26.6	2.3	1512	1	US-09-535-370-99

ALIGNMENTS

RESULT 1
US-08-184-009-215

1 Sequence 215, Application US/08184009
; Patent No. 5831975
; GENERAL INFORMATION:
; APPLICANT: Paolletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtis, Morris & Safford
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/184,009
; FILING DATE: 19-JAN-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Frommer, William S.
; REGISTRATION NUMBER: 25,506
; REFERENCE/DOCKET NUMBER: 454310-2530
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 840-0712
; TELEFAX: 425056CUTMS
; INFORMATION FOR SEQ ID NO: 215:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1182 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; US-08-184-009-215

Query Match 100.0%; Score 1179; DB 1; Length 1182;
Best Local Similarity 100.0%; Prod. No. 0.00062;
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

1 ATGGAGGAGCGAGTCAGATCCTAGCTGTGAGGCCCTCTGAGTCAGAAACATTCTCA 60
1 ATGGAGGAGGCCGAGTCAGATCCTAGCTGTGAGGCCCTCTGAGTCAGAAACATTCTCA 60
61 GACCTATGGAAACTACTTCCTGAAAAAACAAGTCTGGCCCTCTCCAGCAATG 120
61 GACCTATGGAAACTACTTCCTGAAAAAACAAGTCTGGCCCTCTCCAGCAATG 120

Qy 121 GATGATTGATGCTGCTCCCGGAGATATTGAACTATGTTCACTGAAGACCCAGGTCTCA 180
Qy 121 GATGATTGATGCTGCTCCCGGAGATATTGAACTATGTTCACTGAAGACCCAGGTCTCA 180
Db 121 GATGATTGATGCTGCTCCCGGAGATATTGAACTATGTTCACTGAAGACCCAGGTCTCA 180

Qy 181 GATGAAGTCCAGAACTGAGGCTGCTGACCCCTGTCATCTTGTCCTTCCTCCAG 240
Qy 181 GATGAAGTCCAGAACTGAGGCTGCTGACCCCTGTCATCTTGTCCTTCCTCCAG 240
Db 241 ACACGGGGCCCTGACCCCTGTCATCTTGTCCTTCCTCCAG 300
Db 241 ACACGGGGCCCTGACCCCTGTCATCTTGTCCTTCCTCCAG 300
Qy 301 AAAACCTAACGGGAGTACGGGAGTACGGTCTGGCTCTGAACTTGCCAACTGGCCAAAGACC 420
Qy 361 TCTGTGACTTGACGTACTCCCTGCCCTCAACAAGTGTGTTGCCAACTGGCCAAAGACC 420
Db 361 TCTGTGACTTGACGTACTCCCTGCCCTCAACAAGTGTGTTGCCAACTGGCCAAAGACC 420

RESULT 2
US-08-438-356-215
Sequence 215 Application US/08458356
; Patent No. 5,422,515
; GENERAL INFORMATION:
; APPLICANT: Paolletti, Enzo
; APPLICANT: Tartaglia, James
; APPLICANT: Cox, William I.
; TITLE OF INVENTION: RECOMBINANT VI
; NUMBER OF SEQUENCES: 217
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Curtiss, Morris & Saff
; STREET: 530 Fifth Avenue
; CITY: New York
; STATE: NY
; COUNTRY: USA
; 215P. 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible

RESULT 5

US 09-535-370-215 Application US/09535370

Patent No 653594

GENERAL INFORMATION:

APPLICANT: Paolletti, Enzo

Tartaglia, James

Cox, William I.

TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY

NUMBER OF SEQUENCES: 217

CORRESPONDENCE ADDRESS:

ADDRESSEE: Curtis, Morris & Safford

STREET: 530 Fifth Avenue

CITY: New York

STATE: NY

ZIP: 10036

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/535,370

FILING DATE: 24-Mar-2000

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/460,736

FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:

NAME: Frommer, William S.

REGISTRATION NUMBER: 25,506

REFERENCE/DOCKET NUMBER: 454310-2530

TELECOMMUNICATION INFORMATION:

TELEPHONE: (212) 840-3333

TELEFAX: (212) 840-0712

TELEX: 425066CURTMS

INFORMATION FOR SEQ ID NO: 215:

SEQUENCE CHARACTERISTICS:

LENGTH: 1182 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: Linear

MOLECULE TYPE: cDNA

SEQUENCE DESCRIPTION: SEQ ID NO: 215:

US-09-535-370-215

Query Match 100.0%; Score 1179; DB 1; Length 1182;

Best Local Similarity 100.0%; Pred. No. 0.00062;

Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 ATGGAGGAGCCGAGCTAGATCTAGGTCAAGCCCTCTGGCTGAGAACATTTC 60

Db 1 ATGGAGGAGCCGAGCTAGATCTAGGTCAAGCCCTCTGGCTGAGAACATTTC 60

Db 61 GACCTATGGAAACTACTTCCCTGAAAAAACAACCTTCTGCCCCCTGGCTGCCAAGGATG 120

Db 61 GACCTATGGAAACTACTTCCCTGAAAAAACAACCTTCTGCCCCCTGGCTGCCAAGGATG 120

Db 121 GATGATTGAGCTCCAGATGCGAGGTGCTGCCCCGAGATATGAACTGGTCAAGGTC 180

Db 121 GATGATTGAGCTGTCAGATGCGAGGTGCTGCCCCGAGATATGAACTGGTCAAGGTC 180

Db 181 GATGAGGAGCTCCAGATGCGAGGTGCTGCCCCGAGATATGAACTGGTCAAGGTC 240

Qy 1021 TTCCGAGAGCTGATGAGCCACTGGAACCTGAAGTGCAGGTGGAAAGGGCCAGGG 1080

Db 1021 TTCCGAGAGCTGATGAGCCACTGGAACCTGAAGTGCAGGTGGAAAGGGCCAGGG 1080

Qy 1081 GGAGAGGGCTACTCGCCACCTGGAACCTGAAGTGCAGGTGGAAAGGGCCAGGG 1140

Db 1081 GGAGAGGGCTACTCGCCACCTGGAACCTGAAGTGCAGGTGGAAAGGGCCAGGG 1140

Qy 1141 AAAAACATGTTAGACAGAGGGCTGACTGAACTTCAAGATGCTTCAAGTCAGAC 1179

Db 1141 AAAAACATGTTAGACAGAGGGCTGACTGAACTTCAAGATGCTTCAAGTCAGAC 1179

RESULT 6

US-09-535-370-215 Application US/09535370

Sequence 103, Application US/08184009

Patent No. 5833975

GENERAL INFORMATION:

APPLICANT: Tartaglia, James
 APPLICANT: Cox, William I.
 TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
 NUMBER OF SEQUENCES: 217
 CORRESPONDENCE ADDRESS:
 STREET: Curtis, Morris & Safford
 CITY: New York
 STATE: NY
 COUNTRY: USA
 ZIP: 10036
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy diskible
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent in Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/184,009
 FILING DATE: 19-JAN-1994
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: Frommer, William S.
 REGISTRATION NUMBER: 25,506
 REFERENCE/DOCKET NUMBER: 454310-2530
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (212) 840-3333
 TELEFAX: (212) 840-0712
 INFORMATION FOR SEQ ID NO: 103:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1484 base pairs
 STRANDEDNESS: single
 TYPE: nucleic acid
 TOPOLOGY: linear
 MOLECULE TYPE: cDNA
 US-08-184-009-103

Query Match Similarity 100.0%; Score 1179; DB 1; Length 1484;
 Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 1 ATGGAGGGCCGAGTCAGATCCTAGCTGAGTCAGAAACATTICA 60
 Db 233 ATGGAGGCCGAGTCAGATCCTAGCTGAGTCAGAAACATTICA 292
 Qy 61 GACCTATGAAACTACTCTGAAACAGCTTCTGCCCCCTTGCCCTCCAAAGCTATG 120
 Db 293 GACCTATGAAACTACTCTGAAACAGCTTCTGCCCCCTTGCCCTCCAAAGCTATG 352

Query Match Similarity 100.0%; Score 1179; DB 1; Length 1484;
 Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 121 GATGATTGATGCTGGCCGAGATATTGAAACAATGGTCACTGAAAGCCAGGTOCA 180
 Db 353 GATGATTGATGCTGGCCGAGATATTGAAACAATGGTCACTGAAAGCCAGGTOCA 412
 Qy 181 GATGAAGCTCCAGAATGCGAGGGCTGCTAGCTGAGTCAGAAACATTICA 60
 Db 413 GATGAAGCTCCAGAATGCGAGGGCTGCTAGCTGAGTCAGAAACATTICA 472
 Qy 241 ACACCGGGCGCCCTGCAAGCAGGCTGCTGGCCCTGCACTTCTGCTCCCTTCCAG 300
 Db 473 ACACCGGGCGCCCTGCAAGCAGGCTGCTGGCCCTGCACTTCTGCTCCCTTCCAG 532
 Qy 301 AAAACCTAACAGGGAGGTACGGTTCCCTCTGGCTTCTGCACTTCTGCTCCCTTCCAG 360
 Db 533 AAAACCTAACAGGGAGGTACGGTTCCCTCTGGCTTCTGCACTTCTGCTCCCTTCCAG 592
 Qy 361 TCTGTGACTTGCACTTAATCTCCCTCCCTCAACAGAGTGTTCGCAACTGGCAAGAC 420
 Db 593 TCTGTGACTTGCACTTAATCTCCCTCCCTCAACAGAGTGTTCGCAACTGGCAAGAC 652

RESULT 7
 US-08-158-356-103
 Sequence 103, Application US/08458356
 Patent No. 5942235
 GENERAL INFORMATION:
 APPLICANT: Paolletti, Enzo
 APPLICANT: Tartaglia, James
 APPLICANT: Cox, William I.
 TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
 NUMBER OF SEQUENCES: 217
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Curtis, Morris & Safford
 STREET: 530 Fifth Avenue
 CITY: New York
 STATE: NY
 COUNTRY: USA
 ZIP: 10036
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent in Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/458,356

; FILING DATE: 02-JUN-1995
 ; CLASSIFICATION: 424
 ; PRIORITY APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/184,009
 ; FILING DATE: 19-JAN-1994
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Frommer, William S.
 ; REGISTRATION NUMBER: 25,506
 ; REFERENCE/DOCKET NUMBER: 454310-2530
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (212) 840-3333
 ; FAX: (212) 840-0712
 ; TELEX: 425066CURTMS
 ; INFORMATION FOR SEQ ID NO: 103:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 1484 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: cDNA
 ; US-08-458-356-103

Query Match Similarity 100.0%; Score 1179; DB 1; Length 1484;
 Best Local Matches 1179; Pred. No. 0.00049; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGAGAGCCGCGAGTCAGATCCTAGGGTCAAGCCCCCCTCTGAGTCAAGAAACATTTC 60
 Db 233 ATGGAGAGCCGCGAGTCAGATCCTAGGGTCAAGCCCCCCTCTGAGTCAAGAAACATTTC 292

Qy 61 GACCTATGAAACTACTTCTCTGAAACAAACGTTCTGCCCCCTTGCGCTCCAAAGAAATG 120
 Db 293 GACCTATGAAACTACTTCTCTGAAACAAACGTTCTGCCCCCTTGCGCTCCAAAGAAATG 352

Qy 121 GATGATTGATGCTGTCGGGAGCATATTGAAACATGGTCACTGAGAACCCAGTCCA 180
 Db 353 GATGATTGATGCTGTCGGGAGCATATTGAAACATGGTCACTGAGAACCCAGTCCA 412

Qy 181 GATGAGGTCTCCAGATGCGAGGTGCTCCGGGTGCCCCCTGCAACAGCAGCTCT 240
 Db 413 GATGAGGTCTCCAGATGCGAGGTGCTCCGGGTGCCCCCTGCAACAGCAGCTCT 472

Qy 241 ACACCGGGGCCCTGCAACAGGCCCCCTCTGGCCCTCTGTCATCTCTGCCCCCTGCAACAGCAGCTCT 300
 Db 473 ACACCGGGGCCCTGCAACAGGCCCCCTGCAACAGGCCCCCTCTGGCCCTCTGTCATCTCTGCCCCCTGCAACAGCAGCTCT 532

Qy 301 AAAACCTACAGGGCAGTCAGGTTCTGGGAGCTCTGGCATTTGCAATTGGCCAAAGACC 360
 Db 533 AAAACCTACAGGGCAGTCAGGTTCTGGGAGCTCTGGCATTTGCAATTGGCCAAAGACC 592

Qy 361 TCTTGACTTCAGCTACTCCCTGGCTTAAAGATGTGTTGGCAATTGGCCAAAGACC 420
 Db 593 TCTTGACTTCAGCTACTCCCTGGCTTAAAGATGTGTTGGCAATTGGCCAAAGACC 652

Qy 421 TGCCCTGTGGAGCTGAGCTGCTGGGTGATTCCACCCCCGGCTGGCCGCTG 480
 Db 653 TGCCCTGTGGAGCTGCTGGGTGATTCCACCCCCGGCTGGCCGCTG 712

Qy 481 GCGATCTACAGGACTCACGACATGGGAGCTGAGGTTGGCTGCAATTGGCAAGGAAAT 600
 Db 773 CGCTGCTCAAGATAGGATGCTGCTGGCCCTCTGCAATTGGCAAGGAAAT 832

Qy 601 TTGGCTGTGGAGCTGACTGACTGACAAACACTTTCGACATGTTGCAACCTGGCTG 660
 Db 833 TTGGCTGTGGAGCTGACTGACTGACAAACACTTTCGACATGTTGCAACCTGGCTG 892

Qy 661 GAGCGCCCTGAGGTGGCTGACTGACCACTACAACTACATGTTAACTG 720
 Db 893 GAGCGCCCTGAGGTGGCTGACTGACCACTACAACTACATGTTAACTG 952

; RESULT 8
 ; US-08-460-736-103
 ; Sequence 103, Application US/08460736
 ; Patent No. 6265189
 ; GENERAL INFORMATION:
 ; APPLICANT: Paletti, Enzo
 ; ATTORNEY/AGENT: Tartaglia, James
 ; APPLICANT: Cox, William I.
 ; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
 ; NUMBER OF SEQUENCES: 217
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Curtis, Morris & Safford
 ; STREET: 530 Fifth Avenue
 ; CITY: New York
 ; STATE: NY
 ; COUNTRY: USA
 ; ZIP: 10036
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: FLOPPY DISK
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/460-736
 ; FILING DATE: 02-JUN-1995
 ; CLASSIFICATION: 514
 ; PRIORITY APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/184,009
 ; FILING DATE: 19-JAN-1994
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Frommer, William S.
 ; REGISTRATION NUMBER: 25,506
 ; REFERENCE/DOCKET NUMBER: 454310-2530
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (212) 840-3333
 ; TELEX: 425066CURTMS
 ; INQUIRIES FOR SEQ ID NO: 103:
 ; SEQUENCE CHARACTERISTICS:

SS-08-460-736-103							
LENGTH: 1484 base pairs		TYPE: nucleic acid		STRANDEDNESS: single		TOPOLOGY: linear	
MOLECULE TYPE: cDNA		Best Local Similarity 100.0%		Score 1179; DB 1;		Length 1484;	
Matches 1179; Conservative 0;		Pred. No. 0.00049;		Indels 0;		Gaps 0;	
1	ATGGAGGCCGCGAGTCAGATCCTAGGCGAGTCAGATCCTAGGAGGCCCTGTAGAGGAAACATTTC	60					
233	ATGGAGGCCGCGAGTCAGATCCTAGGAGGCCCTGTAGAGGAAACATTTC	292					
61	GACCTATGGAAACTACTCTGTGAAACAAAGTTCTGTCGCCCTGTGAAACATTTC	120					
293	GACCTATGGAAACTACTCTGTGAAACAAAGTTCTGTCGCCCTGTGAAACATTTC	352					
121	GATGATTGATGCTGTCGGAGCATATGAAACATGTTCACTGAAACCCAGTCCA	180					
353	GATGATTGATGCTGTCGGAGCATATGAAACATGTTCACTGAAACCCAGTCCA	412					
181	GATGAAAGCTCCAGATGGCAAGCTGGCCCTGTCATCTGTCAGCTGCTCT	240					
413	GATGAAAGCTCCAGATGGCAAGCTGGCCCTGTCATCTGTCAGCTGCTCT	472					
241	ACACCGGGCCCTGTGCACTAGCCCCCTGTCATCTGTCAGCTGCTCT	300					
473	ACACCGGGCCCTGTGCACTAGCCCCCTGTCATCTGTCAGCTGCTCT	532					
301	AAAACCTAACGGGAGTAGGTTCTGCTGGCTTCTGCACTGGAACGGCAAG	360					
533	AAAACCTAACGGGAGTAGGTTCTGCTGGCTTCTGCACTGGAACGGCAAG	592					
361	TCTGTGACTGCACTACTCCCTGTCATCTGTCAGCTTCTGCACTAAGAATGTTTGC	420					
593	TCTGTGACTGCACTACTCCCTGTCATCTGTCAGCTTCTGCACTAAGAATGTTTGC	652					
421	TGCCCTGTGAGCTGTGGTTGATTCACCCCCGGCACCCGGTCTGGCTATG	480					
653	TGCCCTGTGAGCTGTGGTTGATTCACCCCCGGCACCCGGTCTGGCTATG	712					
481	GCCATCTAACAGGACTACAGCACATGCAAGGTTGTGAGGGCTGCCACATGAG	540					
713	GCCATCTAACAGGACTACAGCACATGCAAGCACATGCAAGGTTGTGAGGCT	772					
541	CGCTGCTCACATAGGCTATGGCTGCTCTCAGATCTTATCCAGATCTGTAAGGAAAT	600					
773	CGCTGCTCACATAGGCTATGGCTGCTCTCAGATCTTATCCAGATCTGTAAGGAAAT	832					
601	TTGCTGTGGAGTATTGATGAGCACATGTCAGCTTGTGTTGCCCTAT	660					
833	TTGCTGTGGAGTATTGATGAGCACATGTCAGCTTGTGTTGCCCTAT	892					
661	GAGCCGCCTGAGGTGGCTCTGACTGTAACTACATCACTAACATGTAACGTT	720					
893	GAGCCGCCTGAGGTGGCTCTGACTGTAACTACATCACTAACATGTAACGTT	952					
721	TCCTGTGATGGCGCATGAAAGGAGACGTTGCTGCTCTGGAGACTCC	780					
953	TCCTGTGATGGGGCATGAAAGGAGACGTTGCTGCTCTGGAGACTCC	1012					
781	AGTGGTAATCTRACTGGAGCGGAACAGCTTGTGCTGCTCTGGAGAGA	840					
1013	AGTGGTAATCTRACTGGAGCGGAACAGCTTGTGCTGCTCTGGAGAGA	1072					
841	GACGGGGCAAGGAGAGAATCTGGAGAACAGCTTGTGCTGCTCTGGAGAG	900					
1073	GACGGGGCAAGGAGAACAGCTTGTGCTGCTCTGGAGAGAATCTGGAGAG	1132					
901	CCAGGGAGACATTAAGGGGGCACTGGGGCAAGGAGAGAATCTGGAGAG	960					

MOLECULE TYPE: CDNA
 SEQUENCE DESCRIPTION: SEQ ID NO: 99:
 US-09-535-370-99

2Y Query Match 100.0%; Score 1179; DB 1; Length 1512;
 Db Best Local Similarity 100.0%; Pred. No. 0.000-8;
 Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 ATGGAGGAGCCGCACTGAGATCTAGCTGAGCCCTGAGCCAAACATTCTCA
 Dbd 269 ATGGAGGAGCCGCACTGAGATCTAGCTGAGCCCTGAGCCAAACATTCTCA
 60
 QY 1169 GACCGGCGCAAGAGAACTCCGCAAGAAAGAACTCCGCAAGAGCTGGCC
 900
 1109 GACCGGCGCAAGAAAGAACTCCGCAAGAAAGAACTCCGCAAGAGCTGGCC
 1168
 901 CAGGGAGCACTAACGGGCACTGGCCAAACACAGGCTCTCCCAACCAAGAAG
 960
 1169 CAGGGAGCACTAACGGGCACTGGCCAAACACAGGCTCTCCCAACCAAGAAG
 1228
 QY 961 AACACATGGGGAGAAATTTACCCCTAGATCGTGGCGCTGAGGTTCTGAGATG
 1020
 1229 AACACATGGGGAGAAATTTACCCCTAGATCGTGGCGCTGAGGTTCTGAGATG
 1288
 QY 1021 TTCCGAGAGCTGAATAGGCTGGACTCAAGGTTGGGGCTGGAGGG
 1080
 Db 1289 TTCCGAGAGCTGAATAGGCTGGACTCAAGGTTGGGGCTGGAGGG
 1348
 QY 1081 GGGAGAGGGTCACTCCAGGAACTCCAGGAACTCCAGGCA
 1140
 Db 1349 GGGAGAGGGTCACTCCAGGAACTCCAGGAACTCCAGGCA
 1408
 QY 1141 AAAAACTCATTTCAAGACAGAGGGCTGACTCAAGAC
 1179
 Db 1409 AAAAACTCATTTCAAGACAGAGGGCTGACTCAAGAC
 1447

RESULT 13
 US-09-535-370-99
 ; Sequence 99, Application US/09535370
 ; GENERAL INFORMATION:
 ; APPLICANT: Paolletti, Enzo
 ; Tartaglia, James
 ; Cox, William I.
 ; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY
 ; NUMBER OF SEQUENCES: 217
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Curtis, Morris & Safford
 ; STREET: 530 Fifth Avenue
 ; CITY: New York
 ; STATE: NY
 ; COUNTRY: USA
 ; ZIP: 10036
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/09/535,370
 ; FILING DATE: 24-Mar-2000
 ; CLASSIFICATION: <Unknown>
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/460,736
 ; FILING DATE: <Unknown>
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Frommer, William S.
 ; REGISTRATION NUMBER: 25,706
 ; REFERENCE/DOCKET NUMBER: 454310-25310
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (212) 840-3333
 ; TELEFAX: (212) 840-0712
 ; INFORMATION FOR SEQ ID NO: 99:
 ; LENGTH: 1512 base pairs
 ; SEQUENCE CHARACTERISTICS:
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TELEX: 42566CDRTMS
 ; IN INFORMATION FOR SEQ ID NO: 99:
 ; LENGTH: 1512 base pairs
 ; SEQUENCE CHARACTERISTICS:
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single

Db 1229 AAACCACTGATGGAAATTTCAGATCCGTGGCTGAGATG 1288
 Qy 1021 TTCCGAGACTGTGATGAGCCCTTGAAGATGCGAGGCCGG 1080
 Db 1229 TTCCGAGACTGTGATGAGCCCTTGAAGATGCGAGGCCGG 1348
 Qy 1081 GGGAGCAGGGTCACTCCAGCCACCTGAGTCAGAAAGGTAGTCTACCTCCGCAT 1140
 Db 1349 GGGAGCAGGGTCACTCCAGCCACCTGAGTCAGAAAGGTAGTCTACCTCCGCAT 1408
 Qy 1141 AAAAACATGTTCAAGAGAGGGCTGACTCGAAC 1179
 Db 1409 AAAAACATGTTCAAGAGAGGGCTGACTCGAAC 1447

RESULT 14
 US-08-184-009-215/C
 ; Sequence 215, Application US/08184009

; GENERAL INFORMATION:

; APPLICANT: Paoletti, Enzo

; APPLICANT: Tartaglia, James

; APPLICANT: Cox, William I.

; TITLE OF INVENTION: RECOMBINANT VIRUS IMMUNOTHERAPY

; NUMBER OF SEQUENCES: 217

; CURRENT APPLICATION ADDRESS:

; ADDRESS: Curtis, Morris & Safford

; STREET: 530 Fifth Avenue

; CITY: New York

; STATE: NY

; COUNTRY: USA

; ZIP: 10036

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/184,009

; FILING DATE: 19-JAN-1994

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: Frommer, William S.

; REGISTRATION NUMBER: 454310-2530

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; TELEPHONE: (212) 840-3333

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; TELEX: 425066CUTRMS

; INFORMATION FOR SEQ ID NO: 215:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 1182 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLogy: linear

; MOLECULE TYPE: cDNA

; US-08-184-009-215

; INFORMATION FOR SEQ ID NO: 215:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 1182 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLogy: linear

; MOLECULE TYPE: cDNA

; US-08-184-009-215

Query Match 2.3%; Score 26.6; DB 1; Length 1182;

Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;

Qy 174 AGTCCTACAGTGAAGCTCCAGAATGCCAGGGCCCTGCTCCGCGCCCTCATCTCTGCC 293

Db 294 AGGCACAGAATACAGGGCCAGGGGGCTGGTGTGGAAAGGGCTGGGATTCTGGAGCTCATCTGCC 233

Qy 234 AGTCCTACAGCCTGCCCTGCTGACCCGCCCTCCCTGCTGGCTGGGATTCTGGAGCTCATCTGCC 293

Db 234 TGTGTTGAGGGCCAGGGGAGCTCTGGGATTCTGGAGCTCATCTGCC 175

Search completed: September 28, 2004, 12:06:14

Job time : 20 secs

Qy 294 T 294

Db	61. GACCTATGGAAACTACTTCCTGAAACAACTGTTCTGCCCCCTTGCCGCCAGCAATG 120	Db	1141 AAAAAACTCATGTTCAAGACAGAAGGGCCTGACTCAGAC 1179
Qy	121. GATGATTGATGCTGTCGGAGGATATTGAACTGGTTCTGAGACAGGTCGA 180	RESULT 3	
Db	121. GATGATTGATGCTGTCGGAGGATATTGAACTGGTTCTGAGACAGGTCGA 180	AAH19387	
Qy	181. GATGAAAGTCCAGAATGCGAGGCTTCCTGAGACAGGTCGA 240	ID	AAH19387 standard; cDNA; 1182 BP.
Db	181. GATGAAAGTCCAGAATGCGAGGCTTCCTGAGACAGGTCGA 240	XX	
Qy	241. ACACCGGGGCCCCCTGACAGGCCCTCTGCCGCCCTGCAAGAGCTCT 240	XX	
Db	241. ACACCGGGGCCCCCTGACAGGCCCTCTGCCGCCCTGCAAGAGCTCT 300	DE	P53 coding sequence.
Qy	301. AAAACCTACAGGGAGCTTCTGACAGGCCCTCTGCCGCCCTGCAAGAGC 300	XX	
Db	301. AAAACCTACAGGGAGCTTCTGACAGGCCCTCTGCCGCCCTGCAAGAGC 360	XX	Cytostatic; gene therapy; p53; tumour; ss.
Qy	361. TCTGTGACTCTGACTCTCCCTGCCCCCTCAACAAAGATGTTTGCACACTGCCAGAC 420	XX	Unidentified.
Db	361. TCTGTGACTCTGACTCTCCCTGCCCCCTCAACAAAGATGTTTGCACACTGCCAGAC 420	XX	
Qy	421. TGCCCTGTGAGCTGGTGAATCCACACCCGGGGACCCGGTCCGGCCATG 480	XX	JP2000354488-A.
Db	421. TGCCCTGTGAGCTGGTGAATCCACACCCGGGGACCCGGTCCGGCCATG 480	XX	26-DEC-2000.
Qy	481. GGCATCTACAGCAGTCAAGACATGAGCTGGGGTTGTGAGGGCTGGCTGG 540	XX	XX
Db	481. GGCATCTACAGCAGTCAAGACATGAGCTGGGGTTGTGAGGGCTGGCTGG 540	XX	09-APR-1999; 99JJP-00139034.
Qy	541. CGCTGCTGAGATGGATGCTGGCTGAGTCACTACATGGCTGGCTGGCTGG 600	XX	XX
Db	541. CGCTGCTGAGATGGATGCTGGCTGAGTCACTACATGGCTGGCTGGCTGG 600	XX	09-APR-1999; 99JJP-00139034.
Qy	601. TTGCTGTGAGTATTGGTAGACAGAACACTTTCGACATGTTGCTGGCTTAT 660	XX	XX
Db	601. TTGCTGTGAGTATTGGTAGACAGAACACTTTCGACATGTTGCTGGCTTAT 660	XX	PS Disclosure; Fig 2; 57pp; Japanese.
Qy	661. GAGCGCCCTAGGTGGCTGAGTCACTACATCCACTACATGGTAACT 720	XX	XX
Db	661. GAGCGCCCTAGGTGGCTGAGTCACTACATCCACTACATGGTAACT 720	XX	PT The present invention relates to a chimera gene of p53 family encoding a transcription activating region, and an oligomer formation region of different p53 family proteins. The chimeric gene can be used for gene therapy of p53 variant human tumours, and analysis of the function of the p53 family gene. The present sequence was used in the present invention.
Qy	721. TCCCTGATGGGGGATGAAACGGGATCCCTCACATCACATGGAGACTC 780	XX	PT
Db	721. TCCCTGATGGGGGATGAAACGGGATCCCTCACATCACATGGAGACTC 780	XX	PT
Qy	781. AGTGTAACTTACTGGAGGATTTGAGCTGGTGTGCTCTGGAGA 840	XX	PT
Db	781. AGTGTAACTTACTGGAGGATTTGAGCTGGTGTGCTCTGGAGA 840	XX	PT
Qy	841. GACCGGGGAGAGGGAGAAATTCCTGGAGGAGCTTCACTGGAGCTGG 900	Qy	1 ATGGAGAGCCGGAGTCTAGATCTCTGGCTGGCTCCAAAGCTTCA 60
Db	841. GACCGGGGAGAGGGAGAAATTCCTGGAGGAGCTTCACTGGAGCTGG 900	Db	1 ATGGAGAGCCGGAGTCTAGATCTCTGGCTGGCTCCAAAGCTTCA 60
Qy	901. CCAGGGAGACTAAGGAGCACTGGAGCTGGAGCTGGAGCTGGAGCTGG 960	Qy	61 GACCTATGGAACTACTTCCTCTGGCTGGCTCCCTGAGTCACTGGCTGG 120
Db	901. CCAGGGAGACTAAGGAGCACTGGAGCTGGAGCTGGAGCTGGAGCTGG 960	Db	61 GACCTATGGAACTACTTCCTCTGGCTGGCTCCCTGAGTCACTGGCTGG 120
Qy	961. AAACCACTGGATGGAGATAATTTCAGTCGGAGACTGGCTGGAGCTGG 1020	Qy	61 GACCTATGGAACTACTTCCTCTGGCTGGCTCCCTGAGTCACTGGCTGG 120
Db	961. AAACCACTGGATGGAGATAATTTCAGTCGGAGACTGGCTGGAGCTGG 1020	Db	121 GATGATTGATGTTGAGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 180
Qy	1021. TTGGAGAGCTGATGGCTGGAACTCAGGATGGCTGGAGCTGGAGCTGG 1080	Qy	121 GATGATTGATGTTGAGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 180
Db	1021. TTGGAGAGCTGATGGCTGGAGCTGGCTGGAGCTGGCTGGCTGGAGCTGG 1080	Db	181 GATGAAACTCCAGAATGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 240
Qy	1081. GGGAGCAGGGTCACTGGAGCTGGAGCTGGCTGGCTGGCTGGCTGGAGCTGG 1140	Qy	241 ACACGGGGGGCCCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 300
Db	1081. GGGAGCAGGGTCACTGGAGCTGGCTGGCTGGCTGGCTGGCTGGCTGGAGCTGG 1140	Db	241 ACACGGGGGGCCCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG 300
Qy	1141. AAAAAACTCATGTTCAAGACAGAAGGGGCTGACTCAGAC 1179	Qy	301 AAAACCTACAGGGGAGTCAAGGCTGACTCAGAC 360
Db	301. AAAACCTACAGGGGAGTCAAGGCTGACTCAGAC 360	Db	301 AAAACCTACAGGGGAGTCAAGGCTGACTCAGAC 360

Qy	61	GACCTATGGAAACTACTTCTGTAAAACAACTGTTCTGCCCCCTTGCCGTCAGCAATG	120	Db	1373	AAAAAAACTCATGTTAAGAGAGAAGGGCTTGACTCAGAC	1411
Db	293	GACCTATGGAAACTACTTCTGTAAAACAACTGTTCTGCCCCCTTGCCGTCAGCAATG	180	Db	353	GATGATTGATGCTGTCCGGAGATAATTGAACTATGGTCACTGAGACCAAGGTCA	412
Qy	121	GATGATTGATGCTGTCCGGAGATAATTGAACTATGGTCACTGAGACCAAGGTCA	180	Db	353	GATGATTGATGCTGTCCGGAGATAATTGAACTATGGTCACTGAGACCAAGGTCA	412
Qy	181	GATGAGGTCCGAATCCAGGCTTCCGGCTGATTCAGGCTTCCGGCTGAGCTCT	240	Db	413	GATGAGGTCCGAATCCAGGCTTCCGGCTGATTCAGGCTTCCGGCTGAGCTCT	472
Qy	301	AAACACTTAACTACAGGCACTACAGCTTCTGCTGGGCTCTGATTGGACAGGAA	360	Db	533	AAACACTTAACTACAGGCACTACAGCTTCTGCTGGGCTCTGATTGGACAGGAA	592
Qy	361	TCTGTGACTTGAAGTACTCCCTGCTGCCCTCAACAGATGTTTGCACACTGAA	420	Db	593	TCTGTGACTTGAAGTACTCCCTGCTGCCCTCAACAGATGTTTGCACACTGAA	652
Qy	421	TGCCCTGTGAGCTTGTGGTGTGATTCCACACCCGGCCGGACCCGGCTCGGCCATG	480	Db	653	TGCCCTGTGAGCTTGTGGTGTGATTCCACACCCGGCCGGACCCGGCTCGGCCATG	712
Qy	481	GCCATCTAACGGAGTCACAGAACATGACATGAGGAGTTGTAGGCGCTGCCACCATGAG	540	Db	713	GCCATCTAACGGAGTCACAGAACATGACATGAGGAGTTGTAGGCGCTGCCACCATGAG	772
Qy	541	CGCTGTCTAGATAGCAATGATGGTGTGGCCCTCTCAGCATCTTATCGAGTGTGAAGAAAT	600	Db	773	CGCTGTCTAGATAGCAATGATGGTGTGGCCCTCTCAGCATCTTATCGAGTGTGAAGAAAT	832
Qy	601	TTGCGTGTGGATTGATGAGCAAGAAACACTTTGCACTAGTGTGGTGTGCCTAT	660	Db	833	TTGCGTGTGGATTGATGAGCAAGAAACACTTTGCACTAGTGTGGTGTGCCTAT	892
Qy	661	GAGCGCCCTGAGGTTGGCTGTGACTGTACCAACTACATGTTAACATG	720	Db	893	GAGCGCCCTGAGGTTGGCTGTGACTGTACCAACTACATGTTAACATG	952
Qy	721	TCCGTGATGGGGCATGAACCGGAGCTTACCATCATCACATGGAAACTCC	780	Db	953	TCCGTGATGGGGCATGAACCGGAGCTTACCATCATCACATGGAAACTCC	1012
Qy	781	AGTGTAACTACTGGACGGAAAGCTTGAGGTGGTTGCTCCGGAGA	840	Db	1013	AGTGTAACTACTGGACGGAAAGCTTGAGGTGGTTGCTCCGGAGA	1072
Qy	841	GACGGGGACAGAGGAAAGAAATCTCCCAAGAAAGGGAGGCCTCACACAGAGCTGCC	900	Db	1073	GACGGGGACAGAGGAAAGAAATCTCCCAAGAAAGGGAGGCCTCACACAGAGCTGCC	1132
Qy	901	CCACGGGCACTAAAGGGACACTGCCCCAACAAACACCGCTCTCCCGCAAGAG	960	Db	1133	CCACGGGCACTAAAGGGACACTGCCCCAACAAACCCAGTCTCCCGCAAGAG	1192
Qy	961	AAACACTTGGATGAGAATATTGACCGGCTGAGCTGGCTTCAGGCTGGCCAGG	1080	Db	1193	AAACACTTGGATGAGAATATTGACCGGCTGAGCTGGCTTCAGGCTGGCCAGG	1312
Qy	1021	TTCGGAGAGCTGATGAGCCCTTGAACTACCTTCAGTCCAGGCTGGCTGGAAAG	1080	Db	1253	TTCGGAGAGCTGATGAGCCCTTGAACTACCTTCAGTCCAGGCTGGCTGGAAAG	1312
Qy	1081	GGAGGAGGGCTCACTGCCCTGAGTCAAAGGGTAGTCTACCTCCGGCTGAGCT	1140	Db	1313	GGAGGAGGGCTCACTGCCCTGAGTCAAAGGGTAGTCTACCTCCGGCTGAGCT	1372
Qy	1141	AAAAAAACTACTGTGTTCAAGAACAGAGGGCTGACTCAGAC	1179	Db			
Db		RESULT 5		Db		AAZ08434	
Db		AAZ08434 standard; DNA; 1512 BP.		Db		AAZ08434;	
Db		XX		Db		XX	
Db		Attenuated recombinant virus; cytokine; tumour associated antigen;		Db		XX	
Db		NYVAC recombinant virus; ALVAC recombinant virus; gene therapy; rabies;		Db		XX	
Db		cancer; tumour necrosis factor; nuclear phosphoprotein; p53; IL-2; GMCSF;		Db		XX	
Db		interleukin; interferon; IFN-gamma; IL-4; melanoma associated antigen;		Db		XX	
Db		carcinembryonic antigen; immunisation; antigenic; poxvirus; influenza;		Db		XX	
Db		immunological response; immunotherapy; vaccine; Newcastle Disease; ss.		Db		OS	
Db		Synthetic.		Db		Hom sapiens.	
Db		OS		Db		Vaccinia virus.	
Db		XX		Db		XX	
Db		US5942235-A.		Db		XX	
Db		24-AUG-1999.		Db		PD	
Db		XX		Db		XX	
Db		95US-00458356.		Db		PF	
Db		XX		Db		PR	
Db		24-DEC-1981;		Db		PR	
Db		08-DEC-1982;		Db		PR	
Db		19-JUN-1984;		Db		PR	
Db		27-AUG-1987;		Db		PR	
Db		28-AUG-1987;		Db		PR	
Db		20-OCT-1987;		Db		PR	
Db		25-APR-1988;		Db		PR	
Db		23-AUG-1988;		Db		PR	
Db		14-JUN-1990;		Db		PR	
Db		21-JUN-1990;		Db		PR	
Db		16-DEC-1991;		Db		PR	
Db		03-MAR-1992;		Db		PR	
Db		06-MAR-1992;		Db		PR	
Db		04-MAY-1992;		Db		PR	
Db		22-JUL-1992;		Db		PR	
Db		20-JAN-1993;		Db		PR	
Db		19-JAN-1994;		Db		PR	
Db		14-APR-1994;		Db		PR	
Db		13-SEP-1994;		Db		PR	
Db		94US-00306259.		Db		XX	
Db		(HEAL-) HEALTH RES INC.		Db		PA	
Db		Paoletti E;		Db		PI	
Db		XX		Db		WPI;	
Db		1999-493494/41.		Db		XX	
Db		Recombinant poxviruses comprising exogenous DNA encoding antigenic		Db		PT	
Db		determinants useful in immunotherapy to immunize against cancers and		Db		PT	
Db		other diseases such as influenza, Newcastle Disease and rabies.		Db		XX	
Db		Example 15; Fig 17; 163pp; English.		Db		PS	
Db		The present invention describes a recombinant poxvirus (I), comprising		Db		CC	
Db		exogenous DNA encoding an antigenic determinant of a pathogen which is		Db		CC	
Db		then expressed in vivo in infected host cells after administration to a		Db		CC	
Db		patient and therefore induces an immunological response (I) may be used		Db		CC	
Db		to vaccinate patients against a wide range of diseases and disorders		Db		CC	
Db		depending on the type of antigen encoded by the exogenous DNA (I) may be		Db		CC	
Db		used to vaccinate against diseases such as rabies, influenza and		Db		CC	
Db		Newcastle Disease. It is particularly useful for immunising against		Db		CC	
Db		cancers. The poxvirus (I) also provides a means of immunotherapy against		Db		CC	
Db		lymphocytes and tumour cells for use in cell-based immunotherapy.		Db		CC	

modalities for cancer. (I) also have enhanced safety compared to unattenuated viruses (attenuation reduces the virulence of the viruses) and known recombinant poxvirus vaccines. This increased level of safety reduces the possibility of a 'runaway' infection in the host and reduces the chance of transmission from vaccinated to unvaccinated individuals and contamination of the environment. The present sequence represents a H6/p53 (wildtype) expression cassette and flanking regions from vP1101 used in the exemplification of the present invention

modalities for cancer. (I) also have enhanced safety compared to unattenuated viruses (attenuated viruses reduce the virulence of the viruses) and known recombinant poxvirus vaccines. This increased level of safety reduces the possibility of a 'runaway' infection in the host and reduces the chance of transmission from vaccinated to unvaccinated individuals and contamination of the environment. The present sequence represents a H6/p33 (wildtype) expression cassette and flanking regions from vP1101 used in the exemplification of the present invention.	Sequence 1512 BP; 379 A; 420 C; 379 G; 334 T; 0 U; 0 Other;
Query Match 100.0%; Score 1179; DB 1; Length 1512;	DB 1109 GACCGGGCAGCAGGGAGAGATCGCAGAAGGGAGCTACAGGAGCTACAGGAGCT 1148
Best Local Similarity 100.0%; Pred. No. 0.00046; Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	QY 901 CGAGGGGCACTAAGCGGACTGCGGACTGCGGACACACAGCTCTCTCCAGGAGCT 960
1 ATGGAGGAGCCCAAGTAGATCCTAGGTCTAGGCTGGCCCCCTCTAGTCAGGAAACATTTC 60	Db 1169 CGAGGGGCACTAAGCGGACACACAGCTCTCTCCAGGAGCT 1228
269 ATGGAGGAGCCCAAGTAGATCCTAGGTCTAGGCTGGCCCCCTCTAGTCAGGAAACATTTC 328	QY 961 AAACCACTGGATGGAGATAATTTCACCCCTAGATCCAGATCTACCTGGAGCTGAGATG 1020
61 GACCTATGGAAACTACTCTCTGAAACAAACGTTCTGTCCCCCTGCCCTCAAGGCAATG 120	Db 1229 AAACCACTGGATGGAGATAATTTCACCCCTAGATCCAGATCTACCTGGAGCTGAGATG 1288
329 GACCTATGGAAACTACTCTCTGAAACAAACGTTCTGTCCCCCTGCCCTCAAGGCAATG 388	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
121 GATGATTGATGTTGATGCCCCGAGCATATTGAAATGGTTCACTGAGAACAGGTTCA 180	Db 1289 TTCCGAGAGCTGATGAACTCAAGATGGCTTGAAGTGGCAAGGAGCTGGAGGG 1348
389 GATGATTGATGTTGATGCCCCGAGCATATTGAAATGGTTCACTGAGAACAGGTTCA 448	QY 1081 GGAGGAGGGCTCACTCCAGGCCACCTGAAAGTGGCTTGAAGTGGCTTGAAGTGG 1140
181 GATGAAAGCTCCAGAATGCAAGGGCTCTCCCGCNGGCCCTGCACAGGAGCTCT 240	Db 1349 GGAGGAGGGCTCACTCCAGGCCACCTGAAAGTGGCTTGAAGTGGCTTGAAGTGG 1408
449 GATGAAAGCTCCAGAATGCAAGGGCTCTCCCGCNGGCCCTGCACAGGAGCTCT 508	QY 1141 AAAAACATGATGTTCAAGAGGAGGGCTGACTCAGTCAAGGAGCTGACTCAGAC 1179
241 ACACGGGGGCCCCCTGACACAGCCGGCTCTGGCCCTCTCATCTTCCTCCCTCCCG 300	Db 1409 AAAAACATGATGTTCAAGAGGAGGGCTGACTCAGTCAAGGAGCTGACTCAGAC 1447
509 ACACGGGGGCCCCCTGACACAGCCGGCTCTGGCCCTCTCATCTTCCTCCCTCCCG 568	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
301 AAAACCTACAGGGCAGTACGGTACGGTTCCCTCTGGACTTGTGATTCTGGATTTG 360	Db 1229 AAACCTACAGGGCAGTACGGTACGGTTCCCTCTGGACTTGTGATTCTGGATTTG 388
569 AAAACCTACAGGGCAGTACGGTACGGTTCCCTCTGGACTTGTGATTCTGGATTTG 628	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
361 TCGTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 420	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
629 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 688	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
421 TGCCTGTCACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 480	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
689 TGCCTGTCACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 748	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
481 GCCATCTCAAGGGTCAAGGCACTGGGATCTCTGGCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 540	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
749 GCCATCTCAAGGGTCAAGGCACTGGGATCTCTGGCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 808	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
5441 CGCTGCTCAAGGGTCAAGGCACTGGGATCTCTGGCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 600	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
809 CGCTGCTCAAGGGTCAAGGCACTGGGATCTCTGGCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 868	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
601 TTGGCTGTGGAGTATTGGATGACAGAAACACTTTGACATAGTGTGCTGTCCTCAT 660	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
8699 TTGGCTGTGGAGTATTGGATGACAGAAACACTTTGACATAGTGTGCTGTCCTCAT 928	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
661 GAGCGGCCCTAGGTTGGCTTGACTGTAACCTACATCACTGGAAACTAGTGTAAAGT 720	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
929 GAGCGGCCCTAGGTTGGCTTGACTGTAACCTACATCACTGGAAACTAGTGTAAAGT 988	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
721 TCCGTGCTGGATGGCGGCAAGGAAACGCTGGCTGAGCTGAACTACATCACTGGAAACTAGTGTAAAGT 780	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
989 TCCGTGCTGGGGGATGAACTGGGCAAGGAAACGCTGGCTGAGCTGAACTACATCACTGGAAACTAGTGTAAAGT 1048	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
781 AGTGGTAATCTACTGGAGGAAACAGTTGGAGGCTGCTGCTCTGGCTGCTCTGGAGA 840	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448
1049 AGTGGTAATCTACTGGAGGAAACAGTTGGAGGCTGCTGCTCTGGCTGCTCTGGAGA 1108	QY 1021 TICCGAGAGCTGAAATGGCTTGAAGTGGCAAGGACGGGAGCTGGAGAGCTGGAGGG 1080
841 GACCGGGCACAGGAGAAGAAACGCTGGCAAGGAAACGCTGGCAAGGACGGCTGCC 900	Db 1289 TTCTGTACTGTGACGTACTCCCTCTGGCCCTCAACAGAGATTTTSSCCAACCTGGCC 448

useful as targets for drug design, e.g., in the treatment of cancer.

useful as targets for drug design, e.g., in the treatment of cancer.				
Sequence 2061 BP; 552 A; 531 C; 457 T; 0 U; 0 Other;				
Query Match 100.0%; Score 1179; DB 1; Length 2061;				
Best Local Similarity 100.0%; Pred. No. 0.0034;				
Matches 1179; Conservative 0; Mismatches 0; Indels 0; Gaps 0;				
1 ATGGAGAGCCGAGTCAGATCTAGGTCAGGCCCTCTGACTCGGAAACATTTCA 60				
1 ATGGAGAGCCGAGTCAGATCTAGGTCAGGCCCTCTGACTCGGAAACATTTCA 60				
61 GACCTATGGAAACTACTCTCTGAAACAGTCTGTCCTGGTCCAGGAATATG 120				
61 GACCTATGGAAACTACTCTCTGAAACAGTCTGTCCTGGTCCAGGAATATG 120				
121 GATGATTGATGCTGTCGCCGGAGATAAGAACATGGTCACTGAAAGCCAGSTTCCA 180				
121 GATGATTGATGCTGTCGCCGGAGATAAGAACATGGTCACTGAAAGCCAGSTTCCA 180				
181 GATGAGGCTCCAGATGCCAGGGCTGCTCCCGCGTGGCCCTCTGACCGCAGCTCT 240				
181 GATGAGGCTCCAGATGCCAGGGCTGCTCCCGCGTGGCCCTCTGACCGCAGCTCT 240				
241 ACACCGCGGCCCTGACAGGCCCTCTGACAGGCCCTCTGACAGGCCCTCTGACAGGCC 300				
241 ACACCGCGGCCCTGACAGGCCCTCTGACAGGCCCTCTGACAGGCCCTCTGACAGGCC 300				
301 AAAACTTACAGGGAGGAGCTAGGGTTCCGTTGGCTCTGGCTCTTGTGATTCTTG 360				
301 AAAACTTACAGGGAGGAGCTAGGGTTCCGTTGGCTCTGGCTCTTGTGATTCTTG 360				
361 TCTGTGACTTGACGTACTCCCTCCCTCAACAGATGTTGCAACTGGCAAGAAC 420				
361 TCTGTGACTTGACGTACTCCCTCCCTCAACAGATGTTGCAACTGGCAAGAAC 420				
421 TGCCTGTCAGCTGACGTACTCCCTCCCTCAACAGATGTTGCAACTGGCAAGAAC 480				
421 TGCCTGTCAGCTGACGTACTCCCTCCCTCAACAGATGTTGCAACTGGCAAGAAC 480				
481 GCCATCTACAGCGTCAAGCGATGTCGAGTGTGTTGAGGGCTCTGGCCACCATG 540				
481 GCCATCTACAGCGTCAAGCGATGTCGAGTGTGTTGAGGGCTCTGGCCACCATG 540				
541 CGCTGCTGAGTAGCTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGGAAAT 600				
541 CGCTGCTGAGTAGCTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGGAAAT 600				
601 TCGCTGTTGAGATTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 660				
601 TCGCTGTTGAGATTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 660				
661 GAGCGCGCTGAGGGTTGGCTGACTGAGAACATCTGAGCTGAGTGTGAAAGCTCC 720				
661 GAGCGCGCTGAGGGTTGGCTGACTGAGAACATCTGAGCTGAGTGTGAAAGCTCC 720				
721 TCGCTGCTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGT 780				
721 TCGCTGCTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGT 780				
781 ACTGGTGAATCTACTGCTGGACGGAGCTTGGCTGGCTGCTGGCTGGCTGGCTGG 840				
781 ACTGGTGAATCTACTGCTGGACGGAGCTTGGCTGGCTGCTGGCTGGCTGGCTGG 840				
841 GACCGGGCGCACAGAGAAGAGATCTCGCAGAAAGGGAGGCTTACCAAGAGCTGCC 900				
841 GACCGGGCGCACAGAGAAGAGATCTCGCAGAAAGGGAGGCTTACCAAGAGCTGCC 900				
901 CCAGGGAGCACTAAGGGAGGAGCTGGCCACATCCATCACACTGGAAAGACTCC 960				
901 CCAGGGAGCACTAAGGGAGGAGCTGGCCACATCCATCACACTGGAAAGACTCC 960				
961 AAACCATCTGGATGAGAATATTCAACCTTCAGATCCGCTGGGCTGGCTGGATG 1020				
961 AAACCATCTGGATGAGAATATTCAACCTTCAGATCCGCTGGGCTGGCTGGATG 1020				

Qy	1 ATGGAGGAGCCGCAGTCAGCTTACATCCATTAGCGTCACTGAGGCCCTCTGAGTCAGAACATTTCA 60	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	1 ATGGGGAGCCGCAGTCAGCTTACATCCATTAGCGTCACTGAGGCCCTCTGAGTCAGAACATTTCA 60	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	61 GACCTATGGAAAACACTTCTGAAAAAACAAGCTTCTGTCCTCCCTCAGCAATG 120	Qy	1141 AAAAFACTCATGTTCAGTCAGAGGGCTGACTAGAC 1179
Db	61 GACCTATGGAAAACACTTCTGAAAAAACAAGCTTCTGTCCTCCCTCAGCAATG 120	Db	1141 AAAAFACTCATGTTCAGTCAGAGGGCTGACTAGAC 1179
Qy	121 GATGATTGATGCTGTCGGGAGATATTGAAACATGGTTCACTGAAACGCCAGGTCCA 180	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	121 GATGATTGATGCTGTCGGGAGATATTGAAACATGGTTCACTGAAACGCCAGGTCCA 180	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	181 GATGAGGCTCCAGATAATGCCAGGAGGTGCTCCCGGTGCCCCCTGACAGCTCT 240	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	181 GATGAGGCTCCAGATAATGCCAGGAGGTGCTCCCGGTGCCCCCTGACAGCTCT 240	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	241 ACACCCGGGGCCCTGCAACGCCCTCTTGACCCCTGTCATCTGTCCTCCAG 300	Qy	1141 AAAAFACTCATGTTCAGTCAGAGGGCTGACTAGAC 1179
Db	241 ACACCCGGGGCCCTGCAACGCCCTCTTGACCCCTGTCATCTGTCCTCCAG 300	Db	1141 AAAAFACTCATGTTCAGTCAGAGGGCTGACTAGAC 1179
Qy	301 AAAACCTTACCCAGGGCAACTACCGTTCTGCTGGCTTCTGCACTTGGACGCCAG 360	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	301 AAAACCTTACCCAGGGCAACTACCGTTCTGCTGGCTTCTGCACTTGGACGCCAG 360	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	361 TCTGTGACTTGAAGTTCAGTTCAGTTCAGTTCAGTTCAGTTCAGTTCAGT 420	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	361 TCTGTGACTTGAAGTTCAGTTCAGTTCAGTTCAGTTCAGTTCAGTTCAGT 420	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	421 TGCCTGTGAGTGTGGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG 480	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	421 TGCCTGTGAGTGTGGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG 480	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	481 GGCATCTAACAGCTGTCAGCACTGAGGAGCTTGTGAGGGCTGCCATGTAG 540	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	481 GGCATCTAACAGCTGTCAGCACTGAGGAGCTTGTGAGGGCTGCCATGTAG 540	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	541 CGCTGCTCTAGATGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 600	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	541 CGCTGCTCTAGATGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 600	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	601 TTGGGTGTTGGATTGGATTGGATTGGATTGGATTGGATTGGATTGGATT 660	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	601 TTGGGTGTTGGATTGGATTGGATTGGATTGGATTGGATTGGATTGGATT 660	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	661 GAGCGGCCTGGAGATTGGATTGGATTGGATTGGATTGGATTGGATT 720	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	661 GAGCGGCCTGGAGATTGGATTGGATTGGATTGGATTGGATTGGATT 720	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	721 TCCNGCATGGGCACATGACCGGAGGCCATCTCCACCATCATCACACTGGAGACTC 780	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	721 TCCNGCATGGGCACATGACCGGAGGCCATCTCCACCATCATCACACTGGAGACTC 780	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	781 AGTGTAACTACTCTGGAGCGAACAGCTTGTAGGTGCGCTGTTGCTGGAGA 840	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	781 AGTGTAACTACTCTGGAGCGAACAGCTTGTAGGTGCGCTGTTGCTGGAGA 840	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	841 GACCGGGCAACAGGAAGAACTTCGAAAGAAAGGGAGCTCACCGACTGCC 900	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	841 GACCGGGCAACAGGAAGAACTTCGAAAGAAAGGGAGCTCACCGACTGCC 900	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	901 CCAGGGAGCACTAAGGGAGCACTGGCAACTCCCTCACCATCACACTGGAG 960	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	901 CCAGGGAGCACTAAGGGAGCACTGGCAACTCCCTCACCATCACACTGGAG 960	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	961 AAACCCATGGATGGAAATATTCTACCTTCAGATCGTGGGGCTGAGCCTTCAGATG 1020	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	961 AAACCCATGGATGGAAATATTCTACCTTCAGATCGTGGGGCTGAGCCTTCAGATG 1020	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Qy	1021 TTCCGAGAAGCTGAATGAGGCCCTTGGAACTCAAGATGGCCGGCTGAGGG 1080	Qy	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140
Db	1021 TTCCGAGAAGCTGAATGAGGCCCTTGGAACTCAAGATGGCCGGCTGAGGG 1080	Db	1081 GGGAGCAGGGGCTCACTCCAGGCCACTCTGAAAGTCCAAAAGGGTCAGTCACCTCCGCAT 1140

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Qy	421	TGCCCTGGAGCTGGGTTGATCCAAACCCGGCAACCGGCCCTGGGCAATG	480	PN	W09416716-A1.
Db	421	TGCCCTGGAGCTGGGTTGATCCAAACCCGGCAACCGGCCCTGGGCAATG	480	XX	XX
Qy	481	GCCATCTAACAGCTGAAAGCATGAGCAAGGAGTTGTAAGGCTCTGCC	540	PD	04-AUG-1994.
Db	481.	GCCATCTAACAGCTGAAAGCATGAGCAAGGAGTTGTAAGGCTCTGCC	540	XX	XX
Qy	541	CGCTGCTGAGTACCGATGCTGCGCCCTCCCTAGCATGAGGTTGTAAGG	600	PF	21-JAN-1994;
Db	541	CGCTGCTGAGTACCGATGCTGCGCCCTCCCTAGCATGAGGTTGTAAGG	600	XX	94WO-US000888.
Qy	601	TTCGGTGTGAGATTGGATGAGATGAGATGAGATGAGATGAGATGAGA	660	PR	21-JAN-1993;
Db	601	TTCGGTGTGAGATTGGATGAGATGAGATGAGATGAGATGAGATGAGA	660	XX	93US-00007115.
Qy	661	GAGCCGCTTGAGTTGGCTGACTGACCACTTACATGAGATGAGATGAGA	720	PR	19-JAN-1994;
Db	661	GAGCCGCTTGAGTTGGCTGACTGACCACTTACATGAGATGAGATGAGA	720	XX	94US-00184019.
Qy	721	TCTGCAATGGGGCATGAACTGGGGCATCTTACATGAGATGAGATGAGA	780	PA	(VIRO-) VIROGENETICS CORP.
Db	721	TCTGCAATGGGGCATGAACTGGGGCATCTTACATGAGATGAGATGAGA	780	XX	XX
Qy	781	AGGGTAATCTACTGGAGGAAACAGCTTGGGGTGGTGGTGGTGGAGA	840	PI	Paolletti E, Tartaglia J, Cox WI;
Db	781	AGGGTAATCTACTGGAGGAAACAGCTTGGGGTGGTGGTGGTGGAGA	840	XX	XX
Qy	841	GACCGGGCGACAGAGGAGAAATCTCCGCAAGAAGGGAGCTACCAAG	900	PI	WPI; 1994-263767/32.
Db	841	GACCGGGCGACAGAGGAGAACTCCGCAAGAAGGGAGCTACCAAG	900	XX	XX
Qy	901	CCAGGGAGCACTAAGGGAGCTGCCAACACAGCTTCCCGCAAGAAG	960	PS	Attenuated recombinant virus used for cancer therapy - comprises DNA
Db	901	CCAGGGAGCACTAAGGGAGCTGCCAACACAGCTTCCCGCAAGAAG	960	XX	encoding cytokine and/or tumour associated antigen.
Qy	961	AAACCACTGGATGGGAGATAATTCAACCTTCAAGATCCGTCGGCTGAG	1020	PS	Example 32; Fig 39; 232pp; English.
Db	961	AAACCACTGGATGGGAGATAATTCAACCTTCAAGATCCGTCGGCTGAG	1020	XX	XX
Qy	1021	TTCCGAGAGCTGAAAGGGCTGAAACTTAAGGATGCCAGGGCTGGAG	1080	PS	This sequence represents the wildtype human p53 gene from the translation
Db	1021	TTCCGAGAGCTGAAAGGGCTGAAACTTAAGGATGCCAGGGCTGGAG	1080	XX	initiation codon to the stop codon. This sequence was used in the
Qy	1081	GGGAGCAGGCTCACTCCAGCAACTTACGGCTGGAGGGCAGGG	1140	PS	construction of an ALVAC-based recombinant virus containing a mutant form
Db	1081	GGGAGCAGGCTCACTCCAGCAACTTACGGCTGGAGGGCAGGG	1140	XX	of the human p53 gene. The mutant form has a G>A substitution at position
Qy	1141	AAAAGACTCATGTTGAGACAGAAGGGCTGACTCAGAC	1179	PS	524, changing an Arg residue at position 175 to a His residue. The
Db	1141	AAAAGACTCATGTTGAGACAGAAGGGCTGACTCAGAC	1179	XX	plasmid pMM110 (see also AAQ67864) contains the vaccinia H6 promoter and
Qy	1174	AGGTCAGATGAGTCCAGAATGAGGGCTCTCCCGCTGCTGAG	233	PS	the wild type human p53 gene in the ALVAC C5 insertion site. The mutant
Db	294	AGGGAGAGATGAGGGCCAGGGGGCTGCTGAGGGCCGGTGA	235	PS	p53 gene was obtained from plasmid Cx22A and cloned into pMM110 to
Qy	234	AGCTCTCATACCGGGCCCTGACAGCCCCCTCTGCTGATCT	293	PS	generate pMM143. Recombination between pMM143 and ALVAC rescuing virus
Db	234	TGCTGGTCAAGGGCCACGGGAGCTCTGGATCTGGATCTGG	293	PS	produced recombinant virus vCP270, which contains the vaccinia H6
Qy	294	T 294	PS	promoted mutated human p53 in the C5 locus. The resulting virus may be	
Db	174	T 174	PS	used in a composition for inducing an antigenic or immunological	
Qy	1182	BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;	PS	response, ie. for immunisation against pathogens. (Updated on 25-MAR-2003	
Db	1182	BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;	XX	to correct PN field.)	
Qy	174	AGGTCAGATGAGTCCAGAATGAGGGCTCTCCCGCTGCTGAG	233	RESULT 12	Query Match 2.3%; Score 26.6; DB 1; Length 1182;
Db	294	AGGGAGAGATGAGGGCCAGGGGGCTGCTGAGGGCCGGTGA	235	RESULTS	Best Local Similarity 51.2%; Pred. No. 12;
Qy	294	AGGGAGAGATGAGGGCCAGGGGGCTGCTGAGGGCCGGTGA	235	Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;	Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;
Db	234	TGCTGGTCAAGGGCCACGGGAGCTCTGGATCTGGATCTGG	293	Qy	174 AGGTCAGATGAGTCCAGAATGAGGGCTCTCCCGCTGCTGAG
Qy	234	TGCTGGTCAAGGGCCACGGGAGCTCTGGATCTGGATCTGG	293	Db	294 AGGGAGAGATGAGGGCCAGGGGGCTGCTGAGGGCCGGTGA
Db	234	TGCTGGTCAAGGGCCACGGGAGCTCTGGATCTGGATCTGG	293	Qy	234 AGCTCTCATACCGGGCCCTGACAGCCCCCTCTGCTGATCT
Qy	294	T 294	PS	Db	234 TGCTGGTCAAGGGCCACGGGAGCTCTGGATCTGGATCTGG
Db	174	T 174	PS	Qy	294 T 294
Qy	294	T 294	PS	Db	174 T 174
Db	174	T 174	PS	RESULT 12	RESULT 12
Qy	294	T 294	PS	AAQ67884/C	AAQ67884/C
Db	174	T 174	PS	ID AA208529 standard; DNA; 1182 BP.	ID AA208529 standard; DNA; 1182 BP.
Qy	294	T 294	PS	XX	XX
Db	174	T 174	PS	AC AA208529;	AC AA208529;
Qy	294	T 294	PS	XX	XX
Db	174	T 174	PS	DT 19-OCT-1999 (first entry)	DT 19-OCT-1999 (first entry)
Qy	294	T 294	PS	XX	XX
Db	174	T 174	PS	DE Human p53 gene.	DE Human p53 gene.
Qy	294	T 294	PS	XX	XX
Db	174	T 174	PS	KW Attenuated recombinant virus; cytokine; tumour associated antigen; tumour	KW Attenuated recombinant virus; cytokine; tumour associated antigen; tumour
Qy	294	T 294	PS	KW murine; interleukin-2; IL-2; pMM110; pMM151; pBS-SK; pMM151;	KW murine; interleukin-2; IL-2; pMM110; pMM151; pBS-SK; pMM151;
Db	174	T 174	PS	KW plasmid; vaccinia; H6 promoter; amplify; primer; TN vector;	KW plasmid; vaccinia; H6 promoter; amplify; primer; TN vector;
Qy	294	T 294	PS	KW polymerase chain reaction; poxvirus; pMM143; immunological response;	KW polymerase chain reaction; poxvirus; pMM143; immunological response;
Db	174	T 174	PS	KW Pathogen; human; interferon; IFN; ss.	KW Pathogen; human; interferon; IFN; ss.
Qy	294	T 294	PS	XX	XX
Db	174	T 174	PS	OS Synthetic.	OS Synthetic.
Qy	294	T 294	PS	XX	XX
Db	174	T 174	PS	KW Homo sapiens.	KW Homo sapiens.

PN	US5942235-A.	RESULT 13;
XX	PD 24-AUG-1999.	AAH19387/C
XX	02-JUN-1995;	ID AAH19387 standard; cDNA; 1182 BP.
PF	95US-00458356.	XX
XX	PR 24-DEC-1981;	AC AAH19387;
XX	81US-00334456.	XX
PR	08-DEC-1982;	DT 03-AUG-2001 (first entry)
PR	82US-00446824.	XX
PR	19-JUN-1984;	DE p53 coding sequence.
PR	84US-00622135.	XX
PR	27-AUG-1987;	KW Cytostatic; gene therapy; p53; tumour; ss.
PR	87US-00090209.	XX
PR	28-AUG-1987;	OS Unidentified.
PR	87US-00030711.	XX
PR	20-OCT-1987;	XX
PR	87US-00110335.	XX
PR	25-APR-1988;	XX
PR	88US-00186054.	XX
PR	23-AUG-1988;	XX
PR	88US-00234390.	XX
PR	14-JUN-1980;	XX
PR	90US-00537882.	JP20000354488-A.
PR	14-JUN-1990;	PN
PR	90US-00537890.	XX
PR	16-DEC-1991;	PD 26-DEC-2000.
PR	91US-00805567.	XX
PR	03-MAR-1992;	PF 09-APR-1999;
PR	92US-00847977.	XX
PR	06-MAR-1992;	PR 09-APR-1999;
PR	92US-00847951.	XX
PR	04-MAY-1992;	XX
PR	92US-00881995.	XX
PR	22-JUL-1992;	XX
PR	92US-00918278.	XX
PR	20-JAN-1993;	PR 09-APR-1999;
PR	93US-00007115.	XX
PR	19-JAN-1994;	PA (IKAWA) IKAWA H.
PR	94US-00184009.	PA (SAKA) OTSUKA PHARM CO LTD.
PR	14-APR-1994;	XX
PR	94US-00224926.	XX
PR	13-SEP-1994;	XX
XX	94US-00306259.	DR WPI; 2001-268293/28.
PA	(HEAL-) HEALTH RES INC.	DR P-PSDB; AAB84836.
PA	PA	XX Disclosure; Fig 2; 57pp; Japanese.
PA	Paoletti E;	XX
PA	XX	PT Chimera gene of the p53 family, useful for gene therapy, and treatment of
PA	DR 1999-493494/41.	PT cancer, comprises a transcription activating region and a DNA binding
PT	XX	PT region.
PT	XX	XX Disclosure; Fig 2; 57pp; Japanese.
PT	XX	XX
PT	XX	CC The present invention relates to a chimera gene of p53 family encoding a
PT	XX	CC transcription activating region, and an oligomer
PT	XX	CC formation region of different p53 family proteins. The chimeric gene can
PT	XX	CC be used for gene therapy of p53 variant human tumours, and analysis of
PT	XX	CC the function of the p53 family gene. The present sequence was used in the
PT	XX	CC present invention
SQ	Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;	XX Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;
SQ	XX	XX Query Match 2.3%; Score 26.6; DB 1; Length 1182;
SQ	XX	XX Best Local Similarity 51.2%; Pred. No. 12;
SQ	XX	XX Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;
PS	Example 32; Fig 39; 163pp; English.	QY 174 AGGTCCAGATGAAAGCTCCAGATGCCAGAGGCTGTCGCCGCTGCCCTGACACAGC 233
PS	XX	DB 294 AGGCACAGAGATAACCGCCGGCCCTGACAGGGCCGGGGGGTGGTCAGGGCCGGGTGGGGTGG 215
PS	XX	CC The present invention describes a recombinant poxvirus (I), comprising
CC	CC an exogenous DNA encoding an antigenic determinant of a pathogen which is	
CC	CC then expressed in vivo in infected host cells after administration to a	
CC	CC patient and therefore induces an immunological response. (I) may be used	
CC	CC to vaccinate patients against a wide range of diseases and disorders	
CC	CC depending on the type of antigen encoded by the exogenous DNA. (I) may be	
CC	CC used to vaccinate against diseases such as rabies, influenza and	
CC	CC Newcastle Disease. It is particularly useful for immunising against	
CC	CC cancers. The poxvirus (I) also provides a means of manipulating	
CC	CC lymphocytes and tumour cells for use in cell-based immunotherapeutic	
CC	CC modalities for cancer. (I) also have enhanced safety compared to	
CC	CC unattenuated viruses (attenuation reduces the virulence of the viruses)	
CC	CC and known recombinant poxvirus vaccines. This increased level of safety	
CC	CC reduces the possibility of a 'runaway' infection in the host and reduces	
CC	CC the chance of transmission from vaccinated to unvaccinated individuals	
CC	CC and contamination of the environment. The present sequence represents a	
CC	CC human p53 gene used in the exemplification of the present invention	
XX	XX Sequence 1182 BP; 276 A; 365 C; 307 G; 234 T; 0 U; 0 Other;	
QY	294 T 294	QY 294 T 294
QY	Query Match 2.3%; Score 26.6; DB 1; Length 1182;	DB 174 T 174
QY	Best Local Similarity 51.2%; Pred. No. 12;	XX
QY	Matches 62; Conservative 0; Mismatches 59; Indels 0; Gaps 0;	AC ADC35154;
QY	XX	XX
QY	174 AGCTCCAGATGAAAGCTCCAGAGGCTGTCGCCGCTGCCCTGACACAGC 233	RESULT 14
DB	294 AGGCACAGAGATAACCGCCGGCCCTGACAGGGCCGGGGGGTGGTCAGGGCCGGGTGGGGTGG 215	ADC35154/C
QY	234 AGCTCCAGATGAAAGCTCCAGAGGCTGTCGCCGCTGCCCTGACACAGC 293	ID ADC35154 standard; cDNA; 1182 BP.
DB	234 TGGTGGTGGCAGGGCCACCGGGAGAGCTCTGGAGCTCTGGATTCATGGACCTGGACCC 175	XX
QY	294 T 294	XX
DB	174 T 174	DB Human breast cancer antigen polynucleotide seq id 38.
QY	294 T 294	XX
DB	174 T 174	KW breast cancer; breast cancer diagnosis; breast cancer antigen; gene; ss.

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